



Faculty of Computer Science and Information Technology

Payroll Management System for F&B Restaurant

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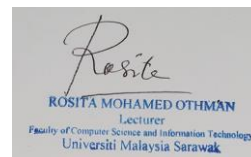
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TABLE OF CONTENT

Form A

DECLARATION.....	II
ACKNOWLEDGMENT.....	III
TABLE OF CONTENT.....	IV
LIST OF FIGURES.....	VII
LIST OF TABLES.....	IX
LIST OF ABBREVIATION.....	X
ABSTRACT.....	XI
ABSTRAK.....	XII
CHAPTER 1.....	1
INTRODUCTION	1
1.1 Introduction	1
1.2 Problem Statement	1
1.3 Objectives.....	4
1.4 Methodology	4
1.4.1 Requirements	5
1.4.2 System Design	5
1.4.3 Development.....	5
1.5 Scope	6
1.6 Significance of Project	6
1.7 Project Schedule.....	6
1.8 Expected Outcome.....	7
1.10 Project Outline	8
1.11 Summary	9
CHAPTER 2.....	10
BACKGROUND STUDY	10
2.1 Introduction.....	10
2.2.1 Unit4 Prosoft HRMS.....	11
2.2.2 Kakitangan.....	13
2.2.3 Starbucksess	16
2.2.5 Comparative Analysis.....	19
2.3 Review of Tools and Related Technologies	20
2.4 Proposed System	22
2.5 Summary.....	24

CHAPTER 3.....	25
REQUIREMENT ANALYSIS & SYSTEM.....	25
3.1 Introduction.....	25
3.2 User Requirement Specification/Requirement Analysis	25
3.2.1 Questionnaires.....	26
3.3 System Requirement Specification	30
3.3.1 Functional Requirement	30
3.3.2 Non-Functional Requirement	31
3.4 Software Requirement Specification	32
3.5 Hardware Requirement Specification	33
3.6 System Design	34
3.6.1 Use Case	34
3.6.2 Database Design.....	40
3.7 User Interface Design.....	44
3.7.1 Admin Interface.....	45
3.7.2 Employee Interface.....	52
3.8 Summary.....	57
CHAPTER 4: SYSTEM IMPLEMENTATION.....	58
4.1 Introduction.....	58
4.2 Installing Software Requirement.....	58
4.3 Development of Payroll Management System for F&B Restaurant.....	59
A) For Admin:	61
B) For Employee:.....	69
4.4 Database Implementation.....	78
4.5 Summary.....	78
CHAPTER 5: TESTING AND EVALUATION.....	79
5.1 Introduction.....	79
5.2 Functionality Testing.....	80
5.3 Usability Testing.....	91
5.4 Conclusion.....	83
CHAPTER 6: CONCLUSION AND FUTURE WORKS.....	94
6.1 INTRODUCTION.....	94
6.2 OBJECTIVE ACHIEVED	94
6.3 FUTURE WORKS.....	95
6.4 CONCLUSION	95

REFERENCES.....	97
APPENDIXES.....	98

LIST OF FIGURES

Figure 1.1 Manual calculation on a punch card with errors	2
Figure 1.2 Payslip printer and computer form pre-printed envelope mailer form for payslip ...	3
Figure 1.3 The waterfall model.....	4
Figure 1.4 Project Schedule	7
Figure 2.1 Snapshot of Unit4 Prosoft HRMS interface.....	12
Figure 2.2 Snapshot of Kakitangan.com interface	15
Figure 2.3 Snapshot of Starbucksess interface	17
Figure 2.4 Pay slips of several employees	18
Figure 2.5 Xampp Control Panel	22
Figure 3.1 percentage of the company that have a proper payroll management	26
Figure 3.2 percentage on how a company stay ahead of compliance updates.....	27
Figure 3.3 percentage of participants that ever heard about Payroll System	35
Figure 3.4 percentage that think a system to view pay slip is a need	27
Figure 3.5 percentage on what are the hoping to accomplish by visiting the system	28
Figure 3.6 Use case diagram	34
Figure 3.7 Activity Diagram	37
Figure 3.9 Sequence diagram of Payroll System for Admin	38
Figure 3.10 Sequence diagram of Payroll System for Employee	38
Figure 3.11 Class diagram of Payroll System.....	39
Figure 3.12 Entity Relationship Diagram of Payroll System	40
Figure 3.13 Normalization to a relational database	41
Figure 3.14-Figure 3.28 User Interface for Admin Side.....	35
Figure 3.29-Figure 3.39 User Interface for Employee Side.....	41
Figure 3.40 Flowchart diagram	47
Figure 3.41 Site navigation for Admin	48
Figure 3.42 Site navigation for Employee	49
Figure 4.1 User Interface for Admin Login	37
Figure 4.2 User Interface for Admin Dashboard	59
Figure 4.3 User Interface for Admin Monitoring Attendance	59
Figure 4.4 User Interface for Admin to Update Attendance.....	60
Figure 4.5 User Interface for Employees List.....	60
Figure 4.6 User Interface for Delete Employee	61
Figure 4.7 User Interface for Edit Employee(Modify)	61
Figure 4.8 User Interface for Deduction Record.....	62
Figure 4.9 User Interface for Position Listing	62
Figure 4.10 User Interface for SOP	63
Figure 4.11 User Interface for News Updates.....	63
Figure 4.12 User Interface for Schedules Roster	64
Figure 4.13 User Interface for Payroll Report	64
Figure 4.14 User Interface for Payslip (PDF)	65
Figure 4.15 User Interface for Employees' Attendance	65

Figure 4.16 User Interface for Employees' Attendance (once sign in)	66
Figure 4.17 User Interface for Employees' Attendance (incorrect ID)	66
Figure 4.18 User Interface for Employees' Dashboard	67
Figure 4.19 User Interface for SOP	68
Figure 4.20 User Interface for News Updates.....	68
Figure 4.21 User Interface for Payroll Report	69
Figure 4.22 User Interface for Payslip	69
Figure 4.23 User Interface for Schedule Roster.....	70
Figure 4.24 User Interface for Print Schedules.....	70
Figure 4.25 Database in PhpMyAdmin	71

LIST OF TABLES

Table 2.1 Comparative Analysis of Similar Existing Systems	19
Table 3.1 Relational Schema Diagram	31
Table 3.2 Software Requirements	32
Table 3.3 Hardware Requirements.....	33
Table 3.4 Use Case Description for Login.....	43
Table 3.5 Use Case Description for Dashboard	43
Table 3.6 Use Case Description for Attendance	43
Table 3.7 Use Case Description for Payroll Report	43
Table 3.8 Use Case Description for Schedule & News Updates	43
Table 3.9 Data Dictionary	43
Table 4.1 Features Analysis of Proposed Systems	57
Table 5.1 Test case 1 - Login	74
Table 5.2 Test case 2 – Add Employee Records	74
Table 5.3 Test case 3 – Update Employess Records	75
Table 5.4 Test case 4 – Delete Employess Records.....	76
Table 5.5 Test case 5 – View Employess Records	77
Table 5.6 Test case 6 – Upload Images	77
Table 5.7 Test case 7 – View Payroll/Salary Report	78
Table 5.8 Test case 8 – Print Pay slip	78
Table 5.9 Test case 9 – Download Pay slip	79
Table 5.10 Test case 10 – Add Attendance.....	79
Table 5.11 Test case 11 – Edit Attendance Records.....	80
Table 5.12 Test case 12 – Delete Attendance Records.....	80
Table 5.13 Test case 13 – View Attendance Progress/Productivity	81
Table 5.14 Test case 14 – Add News Updates.....	82
Table 5.15 Test case 15 – Edit News Updates.....	82
Table 5.16 Test case 16 – Delete News Updates.....	33
Table 5.17 Test case 17 – View News Updates.....	84
Table 5.18 Test case 18 – Add SOPs.....	84
Table 5.19 Test case 19 – View SOPs	85
Table 5.20 Test case 20 – Add Schedules.....	86
Table 5.21 Test case 21 – Edit Schedules Roster	87
Table 5.22 Test case 22 – View Schedules Roster	87
Table 5.23 Test case 23 – Print Schedules Roster	88

LIST OF ABBREVIATION

AGP	Accelerated Graphics Port
CPU	Central Processing Unit
CSS	Cascading Style Sheets
EPF	Employees' Provident Fund
F&B	Food and Beverage
FPH	Farrer Park Hospital
GB	Gigabyte
GHz	Gigahertz
HTML	Hypertext Markup Language
HQ	Head Quarter
HR	Human Resource
KM	Kilometers
LAN	Local Area Network
LHDN	Lembaga Hasil Dalam Negeri
MAGIC	Malaysian Global Innovation & Creativity Centre
MB	Megabyte
PHP	Hypertext Preprocessor
RAM	Random Access Memory
SOCSSO	Social Security Organization
SOP	Standard Operating Procedures
WM	Waterfall Model

ABSTRACT

This final year project titled “Payroll Management System for F&B Restaurant” focuses on payroll management for a Food and Beverages company. The guidelines of the payroll management system for F&B restaurant implies the rethinking of many of the current similar evaluation of the systems. The system will be developed to monitor the employee's report such as their attendances and working hours. A payslip also will be generated in this system. It is easy to use and very fast to perform the task regarding payroll management. The significant of the establishment of the Payroll Management System for F&B Restaurant are providing the staff personal information report, payroll report and generate accurate payslip so that the employees' can easily access the system. The research was design by answering questionnaires by the respondents who work in the F&B employment sector. The feedback form of the user testing is recorded. The main purpose of conducting the usability testing for both admin and employee site is to evaluate the usability of the Payroll Management System for F&B Restaurant and the responsiveness of the user interface in the perspective of the users. The usability is measured in terms of the effectiveness, and the satisfaction of the user when testing the system. There are three users that involved in this testing process which are one for Admin testing and another two users for Employees site. All three of them are working at Manhattan Fish Market located in Queensbay Mall, Penang. The presume of the results is to accomplish the salary calculation in a more organized manner with the effortless payroll management system.

ABSTRAK

Projek tahun akhir ini bertajuk “*Payroll Management System for F&B Restaurant*” yang memberi tumpuan kepada pengurusan gaji bagi syarikat makanan dan minuman(F&B). Garis panduan sistem pengurusan gaji untuk restoran F&B adalah dengan menilai sistem yang sedia ada dan melakukan anjakan paradigma bagi menghasilkan sistem yang lebih efisien. Sistem ini akan ditubuhkan untuk memantau laporan pekerja seperti kehadiran mereka dan juga waktu kerja. Ia amat mudah digunakan dan sangat cepat untuk melaksanakan tugas-tugas berkenaan pengurusan gaji. Kepentingan penubuhan Sistem Pengurusan Gaji untuk Restoran F & B menyediakan laporan maklumat peribadi pekerja, laporan gaji dan menghasilkan slip gaji yang tepat supaya pekerja dapat mengakses sistem dengan mudah. Kajian ini dilakukan dengan menjawab soal selidik oleh para responden yang bekerja dalam sektor pekerjaan F & B. Tujuan utama menjalankan ujian kebolegunaan untuk kedua-dua pentadbir dan laman web pekerja adalah untuk menilai kebolegunaan Sistem Pengurusan Gaji untuk Restoran F&B dan responsif antara muka pengguna dalam perspektif pengguna. Kebolegunaan diukur dari segi keberkesanan, dan kepuasan pengguna ketika menguji sistem. Terdapat tiga pengguna yang terlibat dalam proses ujian ini, satu untuk ujian Admin dan dua pengguna lain untuk laman web Karyawan. Mereka bertiga bekerja di Pasar Ikan Manhattan yang terletak di Queensbay Mall, Pulau Pinang. Mereka menginginkan sistem ini untuk digunakan bagi mempercepatkan proses pengiraan gaji supaya proses perniagaan syarikat makanan mereka menjadi lebih teratur dan mudah.

CHAPTER 1

INTRODUCTION

1.1 Introduction

There are a lot of companies that still have the challenges in managing multiple pay rate requirements and accessing meaningful reporting for multiple locations and franchises. Staff or employees are the most crucial role in any company. For a restaurant, there are many categories of employee such as Outlet Manager, Assistant Outlet Manager, Kitchen, Barista, Floor Crew, Cashier, and Delivery. Hence, Payroll Management System for F&B Restaurant will be developed to make it easier to keep track of all the employees records. An organization or company with numerous numbers of employees need to manage a greater amount of data. Thus, activities or tasks can be difficult without a more sophisticated tool to store and recover data. In addition to providing precise calculations and accurate data of the employees, the electronic and computerized payroll management system will also implement a secure database to organize the storing for documents and records, as well as create a paperless environment.

1.2 Problem Statement

There are companies that still perform attendance by utilizing traditional strategy which is using punch cards to calculate the number of wages for their staffs. After I finished my internship, I went to a well-known food and beverage restaurant for a part-time job. Throughout the few months working as a floor crew at the restaurant, I realized that the company did not have a systematic method in calculating the staff's salary. From my observation and discussion with the Outlet Manager, I found that she needs to calculate each of the staff salaries by calculating the hours manually and then she is required to send the data to the headquarter (HQ). There is a total of 20 staffs including one Outlet Manager, two Assistant Managers, two

Cashiers, seven Floor-Crews, two Baristas, and six Kitchen Helpers. Hence, the process was tedious and time-consuming.

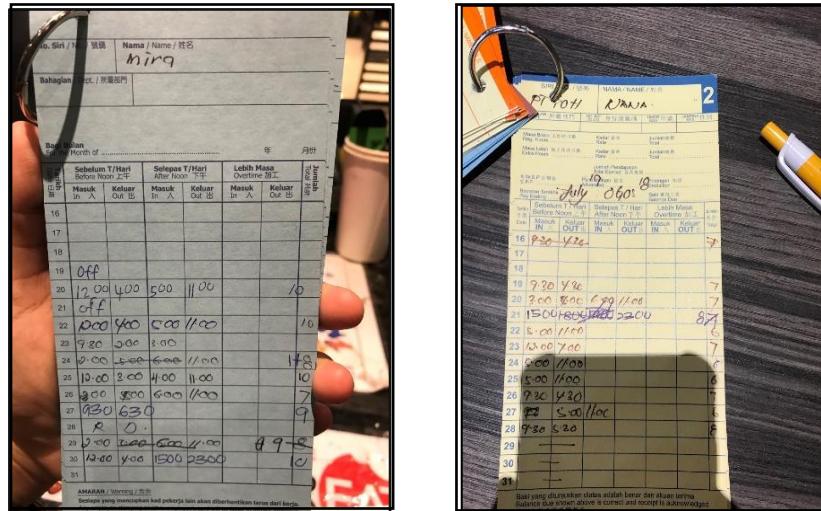


Figure 1.1 Manual calculation on a punch card with errors

Manual handling of staff information poses a higher number of challenges and can give troublesome. Besides, the utilization of paperwork in taking care of some of these procedures could prompt human lapse as paper may wind up in the wrong hands, the paper may somehow missing and require a space to keep. Figure 1.1 above shows the manual calculation on a punch card with a lot of errors. It is very hard and require some time to track staff working hours and the pay checks are also handwritten or printed on a special typewriter or pay slips printer machine.



Figure 1.2 Payslip printer and computer form pre-printed envelope mailer form for payslip

Lack of standard database for the old version of payroll management is very inefficient in handling data management and wastes employee productivity as he or she may proceed to another task but, however, is still stuck at calculating salary and needs to double and triple-checking the data before printing. Figure 1.2 above shows the payslip printer and computer form or pre-printed envelope mailer form that a company needs to buy and spend money to distribute payslips to their employees. Wasted hours of the stressful job make them too tired to stay productive and take proper care of their next tasks. What if the ‘payroll representative’ does not know how to calculate payroll taxes manually? Erroneous tax withholding, reporting and payments will occur. Thus, the non-existence of system integration is time consuming, complicated, will create chaos and troublesome to others. According to Bridge, T.E (2008), an efficient and effective payroll system will guarantee that the employees are satisfied as they will be compensated with an accurate amount.

1.3 Objectives

- To provide a system that monitor staff attendance and calculate their working hours.
- To establish a system that precisely calculates the salaries for restaurant staffs including the deduction of Employee Provident Financial (EPF) and Social Security Organization (SOCSO)
- To develop the system with a database to secure the payroll data

1.4 Methodology

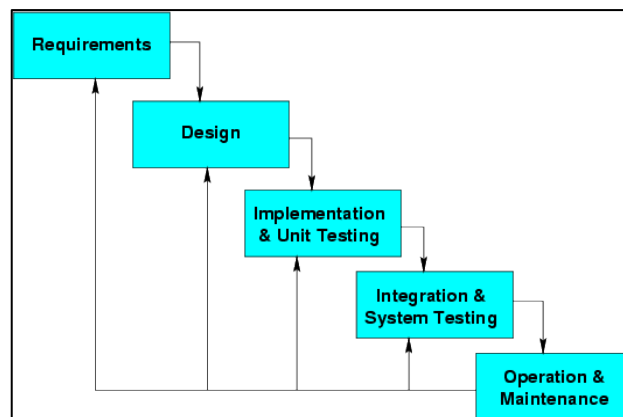


Figure 1.3 The waterfall model

A suitable methodology that will help in the development process of payroll management was chosen which is the Waterfall Model. The selection of the methodology as shown in Figure 1.3 gives many advantages to the final delivery of the proposed system. The methodology chosen includes the technique of systematic development in the project. This method will develop a more scalable system as it uses simplicity to model the actual world. The choice of the Waterfall Model (WM) will encourage planning in the process of developing the proposed system before designing and implementing certain significant requirements. Since the WM is a systematic approach, it requires documentation of each phase of software

development. Besides, at each phase of the project development, the system will be checked thoroughly. Any errors can be easily resolved as all operations are fully documented at each step.

1.4.1 Requirements

Since it takes longer and more efforts to manage the existing system. Hence, an online system for payroll management was proposed. To start gathering requirements, the needs of the employees are identified. Besides, there is a need to understand and analyze the problem in system development including specifying the requirements that are needed for the system. The process will be evaluated by the problems and information collected.

1.4.2 System Design

System design is the approach to the development of a new system. The purpose of this process is to implement a feasible system in detail. This focuses on design translation and the requirements specifications.

1.4.3 Development

Hence, the Waterfall methodology will be used for the approach system. This methodology is chosen because it is easy and straightforward to understand. Every process ends with a testing and validation procedure, which will greatly reduce any problems. The arrows represent the iterative development between two adjacent stages.

1.5 Scope

The proposed of this web-based payroll management system can monitor the attendance of the staff and calculate their working hours. The system will also be used to display the employee's weekly schedule. It is to make sure that the staff is more alert to the situation that happens in the company. Payroll Management System for F&B Restaurant works for both Admin and Staff. For admin, admin controls all the features in the system like register the staff, calculate the working hours for each of the staff, set news such as promo or company current progress, distribute work tasks and schedule for the staff. Next, staff can access the system only when the admin gives them their employee ID. Staff can log in, get access to the system, clock in, clock out and view their payslip.

1.6 Significance of Project

The most crucial part of the project development is to develop wage calculations and deductions quicker as well as by generating precise pay slips or payroll calculations. Besides, the system will calculate monthly salary, EPF, SOCSO with minimal effort by saving the human's workloads and time as stated by Million Business Software (2017, May 26). It will somehow reduce the burden of compliance. The system is very worthy to maintain employees' profiles. The system also will save records in a secure database and the employee can utilize an easily accessible system such as viewing their payslips.

1.7 Project Schedule

Figure 1.5 shows the project schedule by using Gantt Chart for the timeline of Final Year Project 1 and Final Year Project 2.

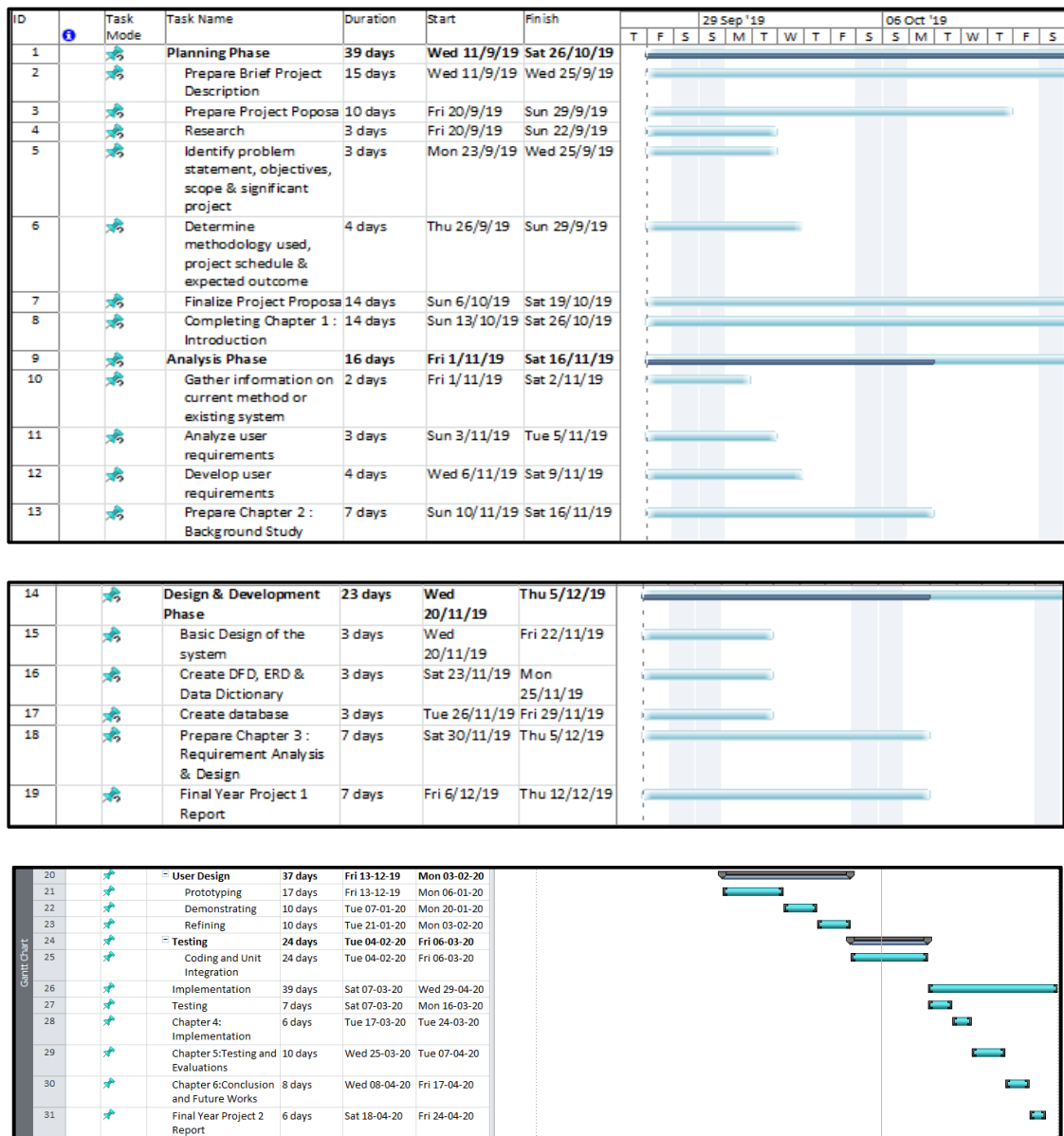


Figure 1.4 Project Schedule (*FYP I-II Gantt Chart*)

1.8 Expected Outcome

- The staff attendance report will be more organized with the effortless payroll management system.
- Rapid in managing payroll calculation including the deduction (EPF&SOCSSO) for staff future-benefits.
- Storing data and information in a secure payroll system.

1.10 Project Outline

The following is the outline for each chapter in the report:

Chapter 1.0: Introduction

This chapter consists the introduction of the Payroll Management System for F&B Restaurant. Besides, problem statement, objective, methodology, project scope, the significance of the project, project schedule, expected outcome and outline of the project report are included within this chapter.

Chapter 2.0: Literature Review/Background Study

Chapter 2 consists of the description of the area and short discussion of the background study of the reviewed similar or existing systems compared to the proposed Payroll Management System for F&B Restaurant. Moreover, the comparison also includes the system features of a listing of the system's strengths and weaknesses.

Chapter 3.0: Requirement Analysis and Design

This chapter consists of the required details such as user's requirement analysis, research studies/methodology such as questionnaires and the summary of the findings (analysis) gathered. Furthermore, system requirement specification (functional and non-functional) is needed as well as software and hardware requirement and the system design.

Chapter 4.0: Implementation

Chapter 4 is the stage of the project to undergoing the implementation of the establishment of the proposed system. It will be organized accordingly, step-by-step by following what features the system will have.

Chapter 5.0: Testing

Testing part will be performing once the system has been designed. Testing is done to make sure all the features are well functioning. If there are certain part that have flaws, it can still be fix. Functional testing and Graphical User Testing is done to ensure that the system works by following the requirements.

Chapter 6.0: Conclusion and Future Work

This chapter discusses the achievements by relating to the previous project outline with the proof that the features are all working well. For future work, a suggestion or recommendation for future extensions will be stated.

1.11 Summary

Payroll Management System for F&B Restaurant will be built for an organization to achieve maximum efficiency and reduce the time required to manage the Payroll task or operation. It is planned to replace an existing manual record system while reducing the amount of time and energy needed for the wage calculations. Furthermore, it is the combination of software, processes, services, hardware, and other systems that help automate the payroll process from the gathering of timekeeping information, computation of wages, to disbursement of salaries and pay slips. This is a user-friendly system whereas it can easily use and understand by any person who never stumble upon this system or unfamiliar with any online payroll system, the system is easy to use for both admin and employees as they follow the operations step by step.

CHAPTER 2

BACKGROUND STUDY

2.1 Introduction

Payroll Management System is getting popular nowadays only for the people who are working in the office or factory, employees in the F&B department also need a more advanced system to ease their work. The Payroll Management System for F&B Restaurant is specifically designed for the employees of food and beverages outlet in any franchises and this system will be used by the employees and admin to take their attendance and manage their payroll rates and report in proper management. Previously, the outlet only used a punch card for a manual record system and to calculate the wages. The utilization of paperwork is very troublesome.

Thus, inaccurate tax withholding, reporting, and payment occur from these procedures in calculating the employee's salary. In the absence of the online payroll management system platform, it is hard to document and track all the information from the discussions on the project, such as wage reports and employee report management.

Therefore, an online payroll management system is designed to provide a good platform for project management such as to check the status of attendance of the employees and check the pay slip report. The payroll management system for F&B restaurant will help the user to manage their employee's records effectively by allowing the accessibility of 24/7 into the system anywhere as long as they are connected to the internet and within the outlet geographical area. The online payroll management offers the different levels of permission to perform the functions of the system based on the role of the user such as administrator and employees.

2.2 Review of Similar Systems

2.2.1 Unit4 Prosoft HRMS

Unit4 Prosoft HRMS (2019) highlights that Unit4 is a leading company technology provider that empowers employees in operations. The developer of this system is Unit4 Asia Pacific Pte Ltd whereas the headquarters is located at 1 Harbourfront Place in Singapore. Farrer Park Hospital (FPH) is one of their customers and this private tertiary healthcare institute in Singapore has been using Unit4 for several years already. FPH chose Unit4 to help them in managing their HR efficiency. Unit4 has been found since 1980 and its current Regional President is Yujin Evered. Yujin was appointed to lead the Unit4's Asia Pacific regional operations since 2018. Eventhough Yujin is born in Korea, she can speak well in English and Korean.

Mainly, Unit4 Prosoft serves only for the HR Department's in full service. The credibility of this website consists of handling HR requirements, providing benefits to the administration team, generating salaries and maintaining employee records. However, the system would not provide access for the employees. The system will be utilized fully by the HR Department only and HR will send an auto email to the employees every month so that the employees can view their payslip.

Figure 2.1 and Figure 2.2 shows the snapshot of Unit4 Prosoft HRMS interface for the payment summary and the attendance report of the employee.